

ABSTRACT OF THE DISCLOSURE

5 A method of modulating the activity of a *Haemophilus influenzae* DXR reductoisomerase enzyme, involving contacting a DXR reductoisomerase enzyme with a compound that inhibits non-mevalonate isoprenoid biosynthesis by lowering or preventing the biosynthesis of either menaquinone or ubiquinone. Pharmaceutical compositions containing such compounds may be used to treat infections. Also provided are methods for utilizing DXR polypeptides and polynucleotides to screen for antibacterial compounds.